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April 3, 2017

BY EMAIL (fullagar.jill@epa.gov)

Ms. Jill Fullagar
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OR 2012 Comment Period
Comments on EPA's Proposed Additions to Oregon 2012 Clean Water Act Subsection 303(d) List

Dear Ms. Fullagar:

These comments on EPA's proposed additions to Oregon's 2012 Clean Water Act (CWA) subsection 303(d) list[1] are submitted on behalf of the Northwest Pulp and Paper Association (NWPPA), the Oregon Farm Bureau Federation (OFB), and the Oregon Forest & Industries Council (OFIC) (collectively, the Trade Associations). Thank you for the opportunity to comment and for EPA's extension of the original comment period.

Commenting Organizations

NWPPA is a 61 year-old regional trade association representing 11 member companies and 14 pulp and paper mills in the Pacific Northwest, including five in Oregon. Pulp and paper mills provide more than 4400 manufacturing jobs in Oregon. NWPPA is committed to protecting the environment and the communities in which its members live and work.

OFB is a grassroots, nonprofit, nonpartisan organization representing the interests of Oregon's family farmers and ranchers. With a total membership of over 60,000 Oregon families, OFB is the state's largest general agricultural organization. Its goals are to promote educational

[1] The proposed additions are described in the December 21, 2016 letter and enclosures from Daniel D. Opalski, Director, Office of Water and Watersheds, EPA Region 10, to Wendy Wiles, Administrator, Environmental Solutions Division, Oregon Department of Environmental Quality, regarding the "Partial Approval/Partial Disapproval of Oregon's Final 2012 303(d) List." (EPA Proposal.)

improvement, economic opportunity, and social advancement for its members and the farming, ranching, and natural resources industries as a whole.

OFIC is a trade association representing more than 50 Oregon forestland owners and forest products manufacturers. Its members combine sustainable forest management practices with the latest science and technology to continuously improve the environmental, social, and economic value of healthy working forests. OFIC's members protect and manage more than 5 million acres of Oregon forestlands and employ nearly 60,000 Oregonians.

General Comments

CWA subparagraph 303(d)(1)(A), 33 U.S.C. § 1313(d)(1)(A), requires each State to identify those waterbodies for which federal and state effluent limits are not stringent enough to implement "any water quality standard applicable" to such waterbodies. CWA subparagraph 303(d)(1)(B), 33 U.S.C. § 1313(d)(1)(B), requires each State to identify those waterbodies for which controls on thermal discharges under CWA section 301, 33 U.S.C. § 1311, are not stringent enough "to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife." The Trade Associations are concerned that EPA's criteria for listing waterbodies on Oregon's 2012 subsection 303(d) list are much too broad. This has resulted in proposed listings for which there is insufficient waterbody-specific evidence of water quality standards violations or, for temperature, insufficient waterbody-specific evidence of temperatures that will not assure a balanced, indigenous population of shellfish, fish, and wildlife.

Adding waterbodies to the subsection 303(d) list has substantial consequences not only for entities regulated by the CWA, but also for the general public, the Oregon Department of Environmental Quality (DEQ), and EPA itself. First and foremost, DEQ must establish a total maximum daily load (TMDL) for every listed waterbody-pollutant combination. Developing a TMDL requires substantial commitments of time and resources by DEQ, other governmental agencies, regulated entities, and the public. These resources are extremely limited, particularly those of DEQ, which has struggled to timely fulfill its CWA obligations—including the establishment of TMDLs. Using limited resources to develop and implement TMDLs for waterbodies that may not in fact be impaired, or for pollutants and discharges that are not contributing to an impairment, will necessarily divert resources from DEQ's other, more pressing CWA obligations. Moreover, to the extent that DEQ is unable to develop and establish the required TMDLs, EPA will be required to develop and establish them, which will divert EPA's own limited water quality resources.

Although in a strict legal sense the only consequence of a subsection 303(d) listing is the obligation to establish a TMDL, as a practical matter the listing decision has substantial effects on regulated entities even before a TMDL is established. These may include a presumption that the waterbody has no assimilative capacity, which, if the presumption is false, will result in unnecessarily stringent point source discharge limits and nonpoint source restrictions. Adding a

waterbody to the subsection 303(d) list may also divert public and private environmental resources that could better be spent on other waterbodies and pollutants if the listing does not reflect an actual and substantial ongoing water quality standards violation or temperature impairment.

For these reasons, a waterbody should not be added to the subsection 303(d) list for a pollutant in the absence of persuasive evidence of an ongoing water quality standards violation or temperature impairment associated with that pollutant. If there is only evidence of a potential ongoing violation or impairment, the waterbody and pollutant combination should be listed instead as "Category 3—Insufficient data to determine whether a standard is met." A Category 3 listing would also better identify the waterbody and pollutant combination as a priority for additional monitoring resources to determine whether it should be added to the subsection 303(d) list.

Specific Comments

1. *The proposed additions should not be based on narrative water quality standards unless there is sufficient evidence that the designated uses of the waterbody at issue are actually impaired.*

Many of the proposed additions to Oregon's 2012 subsection 303(d) list are based entirely on listing criteria that are not themselves water quality standards. The proposed additions also are not supported by waterbody-specific evidence of impairments to designated uses that would constitute a violation of a narrative water quality standard. In the absence of sufficient evidence of a violation of a numeric or narrative water quality standard, these waterbody-pollutant combinations should not be listed, including those discussed in the following subsections.

a. Biocriteria

EPA proposes to list 24 additional Oregon waterbody segments based on Oregon's narrative biocriteria water quality standard, OAR 340-041-0011: "Waters of the State must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities."[2] The actual listing decisions, however, are based on a DEQ model, Predictive Assessment Tool for Oregon (PREDATOR), which evaluates macroinvertebrate sampling data from a stream against the data that the model predicts the stream would have if it were not impaired. If the PREDATOR scores for a waterbody do not meet the criteria specified in EPA's listing methodology, EPA has proposed to add the waterbody to the subsection 303(d) list. But neither the PREDATOR model nor the listing criteria based on the model results have been adopted as rules or water quality standards. Moreover, the proposal does not identify any other evidence of impairment to resident biological communities in these waterbodies. In effect,

[2] EPA Proposal, Enclosure 6 and Appendix C.

the proposal treats the PREDATOR-based listing criteria as water quality standards because not meeting the criteria is all that is required to list the waterbody as impaired. This is not a sufficient basis for concluding that the biocriteria standard has been violated in these waterbodies. At most, the PREDATOR scores provide a basis for placing these waterbodies in Category 3—Insufficient Data.

The Trade Associations are separately concerned that the proposed biocriteria listings do not attribute the low PREDATOR scores to any pollutant. Pursuant to CWA subparagraph 303(d)(1)(C), 33 U.S.C. § 1313(d)(1)(C), the proposed additions to Oregon's subsection 303(d) list would trigger an obligation to establish a TMDL to achieve the biocriteria standard in these waterbodies. In the absence of an identified pollutant or pollutants whose loading to the waterbody could be limited by a TMDL, however, it is not possible for DEQ (or EPA) to establish a TMDL that will achieve the standard. This is an independent reason not to add these waterbodies to the subsection 303(d) list based on the biocriteria standard.

b. *Phosphorus*

EPA proposes to add approximately 40 waterbody segments to Oregon's 2012 subsection 303(d) list for having excessive phosphorus concentrations.[3] Oregon, however, does not have a water quality standard for phosphorus, and the proposal does not identify any specific numeric or narrative water quality standard as the basis for the proposed additions. Rather, the proposed additions appear to be based on the adverse effects that excessive phosphorus might have on the listed waterbodies' designated aquatic life, recreation, and drinking water uses. Specifically, EPA has proposed to list any waterbody for phosphorus if (1) greater than 10 percent of water quality samples have a total phosphorus concentration in excess of 0.1 milligrams per liter (mg/L) and (2) the waterbody is also listed as impaired for pH, chlorophyll *a*, or dissolved oxygen.

The proposed phosphorus listings are improper because they are not based on an applicable water quality standard. Although EPA has limited the proposed listings to waterbodies that are also listed as impaired for pH, chlorophyll *a*, or dissolved oxygen, they would nonetheless oblige DEQ to develop a TMDL for phosphorus regardless of whether phosphorus itself is preventing the achievement of an applicable water quality standard.[4] Moreover, the TMDL would presumably need to be established to achieve a phosphorus concentration in the waterbody of 0.1 mg/L—otherwise, the listing criteria would require the waterbody to remain on the list. Not only may achieving such a concentration be unnecessary to achieve applicable water quality standards, achieving it may be unattainable in some waterbodies because of naturally occurring phosphorus concentrations.

[3] EPA Proposal, Enclosure 6 and Appendix I.

[4] If, in fact, anthropogenic sources of phosphorus are causing violations of water quality standards for other pollutant parameters, such as dissolved oxygen and pH, the TMDLs for those other pollutant parameters could include phosphorus loading restrictions. But a phosphorus concentration of more than 0.1 mg/L does not itself violate water quality standards.

Because the proposed phosphorus additions are not based on an applicable water quality standard, and would add to DEQ's TMDL workload without providing any further water quality benefits, the Trade Associations urge EPA not to list these waterbody segments for phosphorus.

c. *Diazinon*

EPA proposes to add two waterbody segments to Oregon's 2012 subsection 303(d) list for exceeding a diazinon concentration of 50 nanograms per liter (ng/L).[5] Oregon has adopted a guideline diazinon concentration of 50 ng/L. *See* OAR 340-041-8033(2), Table 31. But this is not an approved water quality standard, and the proposed additions to the subsection 303(d) list do not include any other evidence that the designated uses of the waterbodies at issue are impaired by diazinon. Nonetheless, listing these waterbodies for diazinon would require DEQ (or EPA) to develop a TMDL for diazinon, and the TMDL would presumably need to include sufficient diazinon loading restrictions to achieve the guideline concentration of 50 ng/L. This approach would eliminate the distinction between approved, applicable water quality standards and guideline concentrations by effectively treating them as the same. Because the proposed diazinon additions are based solely on guideline criteria and not on an applicable water quality standard, the Trade Associations urge EPA not to add them to Oregon's subsection 303(d) list absent waterbody-specific evidence that designated uses are impaired by diazinon.

d. *Chlorophyll* a

EPA proposes to add four waterbody segments to Oregon's 2012 subsection 303(d) list for exceeding a chlorophyll *a* concentration of 0.015 mg/L.[6] Under Oregon's rules, however, this concentration is not an applicable water quality standard. Instead, it is an action level that may not be used for regulatory purposes without (1) further waterbody-specific studies of whether designated uses are impaired and (2) the adoption of a control strategy by the Oregon Environmental Quality Commission, which may include a modified chlorophyll *a* concentration target. *See* OAR 340-041-0019(2). No such studies have been undertaken in the waterbodies at issue, nor has the Commission adopted a control strategy in these waterbodies. Because a chlorophyll *a* concentration in excess of 0.015 mg/L is not in itself a violation of water quality standards, the Trade Associations urge EPA not to add these waterbodies to Oregon's subsection 303(d) list.

[5] EPA Proposal, Enclosure 6 and Appendix K.

[6] EPA Proposal, Enclosure 6 and Appendix D.

2. *The proposed additions for copper, lead, and zinc should not be based on an assumed water hardness of 25.*

EPA proposes to add 11 waterbody segments for copper, 7 for lead, and 1 for zinc, based on exceedances of freshwater chronic water quality criteria for the protection of aquatic life.[7] *See* OAR 340-041-8033(1), Table 30. These criteria are functions of water hardness, with lower levels of hardness resulting in more stringent (lower) criteria. EPA's proposed additions, however, assume that all waterbodies have a very low, uniform hardness of 25, which results in extremely stringent criteria (3.62 micrograms per liter (µg/L) for copper, 0.54 µg/L for lead, and 36 µg/L for zinc). Thus, regardless of the actual water hardness at the time that the copper, lead, or zinc sample was taken in the waterbody, EPA assumes that the hardness was 25. This assumption is likely to result in many false positives, where the measured metals concentration did not exceed the criterion because the actual water hardness at the time was higher than 25. The likelihood of false positives is further exacerbated by EPA's listing methodology, which requires listing based on only two exceedances of the criterion in the waterbody, no matter how many measurements, or what proportion of measurements, were less than the criterion. Because the applicable water quality criteria vary substantially with hardness, there is insufficient evidence of a water quality criteria violation in the absence of contemporaneous water hardness data. Accordingly, the Trade Associations urge EPA not to add these waterbodies to Oregon's subsection 303(d) list.

3. *The proposed additions for copper should not be based on a disapproved water quality standard that has since been superseded.*

EPA's proposed additions of 11 waterbody segments for copper are based on Oregon's former hardness-based chronic freshwater aquatic life criterion for copper.[8] EPA disapproved this criterion in January 2013,[9] well before Oregon submitted its 2012 subsection 303(d) list to EPA in November 2014. In response to the disapproval, Oregon adopted new freshwater aquatic life criteria for copper based on EPA's recommended biotic ligand model. *See* OAR 340-041-8033(1), Table 30. EPA approved the new criteria on January 9, 2017.[10] The revised copper criteria differ substantially from the former hardness-based criteria and are a function of approximately a dozen water quality variables. *See id.*

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[7] EPA Proposal, Enclosure 6 and Appendix K.

[8] EPA Proposal, Enclosure 6 and Appendix K.

[9] Letter dated January 31, 2013 from Daniel D. Opalski, Director, Office of Water and Watersheds, EPA Region 10, to Greg Aldrich, Administrator, Water Quality Division, Oregon Department of Environmental Quality, regarding "EPA's Action on New and Revised Aquatic Life Water Quality Criteria for Toxics in Oregon's Water Quality Standards."

[10] Letter dated January 9, 2017 from Daniel D. Opalski, Director, Office of Water and Watersheds, EPA Region 10, to Wendy Wiles, Administrator, Environmental Solutions Division, Oregon Department of Environmental Quality, regarding "EPA's Action on the State of Oregon's November 14, 2016 Revisions to Oregon's Surface Water Quality Standards."

Although Oregon developed its 2012 subsection 303(d) list on the basis of the now disapproved hardness-based criteria for copper, EPA cannot now add waterbodies to the list based on these criteria. Any additions to the list for copper must be based on Oregon's currently approved and effective water quality criteria for copper. Moreover, the substantial dissimilarity between the former and current criteria preclude any inferences regarding whether a violation of the former criteria would also be a violation of the current criteria.

4. ***The listing criterion for toxic pollutants does not account for the averaging periods included in Oregon's water quality standards.***

EPA's listing criterion for toxic pollutants, including metals, is two or more measurements since 1999 that do not meet the numeric value of the most stringent applicable water quality criterion.[11] This listing criterion is extraordinarily and unnecessarily conservative. Indeed, once there are two such measurements, the waterbody must be listed and can never be delisted—regardless of the number or proportion of subsequent measurements that meet the criterion. For example, if two measurements exceed the numeric value of the applicable criterion, it does not matter whether there are 100, 1000, or 10,000 measurements that meet the criterion. Under the listing criteria, the waterbody must be included on the subsection 303(d) list, and DEQ must establish a TMDL for that pollutant and waterbody.

But in addition to being unreasonably conservative, EPA's listing methodology is inconsistent with Oregon's water quality standards for toxic pollutants. EPA's proposed additions are based on two or more instantaneous exceedances of either chronic aquatic life criteria values or human health criteria values. Both of these types of criteria, however, are expressed as averages, not instantaneous values.

Oregon's chronic aquatic life criteria are "applied as a 96-hour (4 days) average concentration" that "may not be exceeded more than once every three years."[12] OAR 340-041-8033(1), Table 30. Even if EPA could reasonably assume that an instantaneous concentration measurement is representative of the average concentration over 96 hours, only two exceedances since 1999 would not be a violation of the applicable chronic criterion because the criterion allows for an exceedance once every three years. No waterbody should be added to the subsection 303(d) list based on a chronic aquatic life criterion unless there is at least an average of one exceedance for every three years for which data is available. Moreover, where more than one measurement is available within a 96-hour period, the average value should be used.

Oregon's human health criteria are intended "to protect Oregonians from potential adverse health impacts associated with long-term exposure to toxic substances associated with

[11] EPA Proposal, Enclosure 6 and Appendix K.

[12] The chronic criterion for certain pesticides is applied as a 24-hour average, rather than a 96-hour average. *See* OAR 340-041-8033(1), Table 30, Endnote A.

consumption of fish, shellfish, and water." OAR 340-041-0033(3), -8033(3), Table 40. For carcinogens, which comprise slightly more than half of the toxics for which there are human health criteria, the period of exposure is a human lifetime. For this reason, a waterbody should not be added to the subsection 303(d) list based on a human health criterion exceedance unless the mean value of the measurements in the waterbody exceeds the criterion. Two instantaneous measurements in excess of the numeric value of the applicable criterion are insufficient to demonstrate that the criterion is not met.

5. *The proposed additions to the subsection 303(d) list for temperature cannot be based solely on the potential invalidation of the Oregon temperature TMDLs.*

EPA proposes to add 714 waterbody segments for temperature based on the potential invalidation of temperature TMDLs for these waterbodies in pending litigation challenging the TMDLs. *Northwest Environmental Advocates v. EPA*, No. 12-1751 (D. Or.). Even if the court does ultimately invalidate these TMDLs, that in itself is an insufficient basis to add these waterbody segments to Oregon's subsection 303(d) list.

CWA subparagraph 303(d)(1)(B), 33 U.S.C. § 1313(d)(1)(B), provides:

> Each State shall identify those waters or parts thereof within its boundaries for which controls on thermal discharges under section 1311 of this title [CWA section 301] are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

Unlike other pollutants, subsection 303(d) listings for heat (temperature) are not based on violations of water quality standards, but on temperatures that exceed those that would provide for a balanced, indigenous population of shellfish, fish, and wildlife. *See also* 40 C.F.R. § 130.7(b)(2). The proposed additions of 714 waterbody segments for temperature are not accompanied by any waterbody-specific findings that the measured temperatures in those waterbodies do not provide for a balanced, indigenous population of shellfish, fish, and wildlife. Nor is any waterbody-specific evidence presented concerning the health of these populations or whether any impairment of their health is attributable to excessive temperatures.

Moreover, even if EPA could assume that any waterbody temperatures in excess of the currently applicable temperature standards do not assure a balanced, indigenous population of shellfish, fish, and wildlife in that waterbody, the proposed additions do not include an analysis of current compliance with those standards, which are expressed as seven-day averages of daily maximum temperatures. *See* OAR 340-041-0028(4). Simply because DEQ in the past included a waterbody on Oregon's subsection 303(d) list for temperature and later developed a temperature TMDL for that waterbody does not mean that the waterbody currently does not meet the applicable temperature standard and therefore must be added back to the list upon the invalidation of the TMDL.

Conclusion

Oregon's subsection 303(d) list is already extraordinarily long, and decades will be required for DEQ—and failing DEQ, EPA—to establish TMDLs for all of the listed waterbody-pollutant combinations. Although DEQ has some discretion to give priority to the establishment of TMDLs for the most pressing water quality problems, recent arguments based on *Anacostia Riverkeeper, Inc. v. Jackson*, 798 F.Supp.2d 210 (D.D.C. 2011), if successful, would largely eliminate that discretion by prohibiting the establishment of a TMDL for one water quality standard without addressing all other water quality standards that apply to a listed waterbody. It is important, then, for both EPA and DEQ to be judicious in adding more waterbodies and pollutants to the subsection 303(d) list. In particular, the extremely broad listing criteria used by EPA and DEQ, which require listing based on the slightest indication of potentially ongoing water quality standards violations, should be reconsidered. The Trade Associations look forward to working with EPA, DEQ, and other stakeholders to reevaluate Oregon's listing methodology through an open and transparent process before the next Oregon subsection 303(d) list is prepared.

Again, thank you very much for considering these comments.

Sincerely yours,

Michael R. Campbell

cc: NWPPA
OFB
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